Roll # :_____ Name : _____ Topic: square & square root

1 .Encircle the best answer(only one) for each of the following statement.

(i) Square root of square of 4 is:

(a) 4 (b) 16 (c) 8 (d) not possible

(ii) $\sqrt[2]{1\frac{7}{9}}$ *is same as:*

(a) $\frac{16}{9}$ (b) $1\frac{1}{4}$ (c) $1\frac{1}{3}$ (d) $\frac{3}{16}$

(iii) Which smallest number which should be subtracted from 26 to get a perfect square?

(a) 1 (b) −12 (c) 4 (d) zero

(iv) If $A\times3\times3\times7\times7\times2$ *is the prime factorization of a perfect square number then value A is:*

(a) 3^3 (b) 3 (c) 2 (d) 7

(v) Which of the following is not a perfect square?

(a) 100 (b) 81 (c) 28 (d) 49

(vi) 6.25 is the square of :

(a) 2.5 (b) 2.25 (b) 3.125 (d) 2.75

(vii) Which of the following is multiplied by itself to get 10.24?

(a) 3.2 (b) 2.56 (c) 5.12 (d) 20.48

(viii) $\sqrt[2]{1\frac{9}{16}}$ *is same as:*

(a) $\sqrt[2]{\frac{25}{16}}$ (b) $1\frac{1}{4}$ (c) both 'a'& 'b' (d) $\frac{4}{5}$

(ix) Which smallest number should be multiplied with $5\times5\times3\times2\times2$ *to make it a factorization of a perfect square?*

(a) 2 (b) 5 (c) 2×5 (d) 3

(x) $65-(A)$ *will be perfect square if value of 'A' :*

(a) 1 (b) 2 (c) 3 (d) zero

(xi) Which of the following statement is true?

(a) Perfect square numbers ends at 2,3 , 7 or 8.

(b) Perfect square always end either 0 , 1, 4 ,5 or 9.

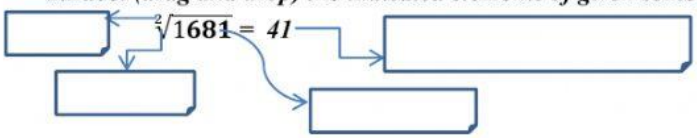
(c) Square root of an odd number is always an odd number.

(d) all of these

(xii) Square of $\sqrt[2]{16}$ *is:*

(a) 16 (b) 4 (b) 8 (d) 64

2.Label (drag and drop) the indicated elements of given sentence by choosing words form box.



Radicand, radical, square of number , square root of number, index

3.Drag the equivalent numbers from the box below& drop them in their suitable / respective box in the column.

$\sqrt[2]{81}$, $(\sqrt{4096})$, $\sqrt[2]{(12)\text{ squared}}$, $(-66)^2$, square of −15 , $(-1)^2$

$(-3)^2$		12		4356
	225		$\sqrt{1}$	

4. Replace each of box with the correct answer.

(i) Given that $9\times9=81$ *then* $\sqrt{81}$ =

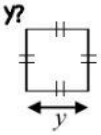
(ii) Given that $41\times41=1681$ *then* $\sqrt{1681}$ =

(iii) Given that $95^2 = 9025$ *then* $\sqrt{9025}$ =

5.

If area of given square is 289cm² then what is the value of y?

Y = _____



6. Encircle yes or No for each of following statement.

(a) ***Square of an even number is always an even number.*** ***yes /No***

(b) $(length\ of\ each\ side\ of\ square)^2$ ***= Area of square*** ***yes /No***

(c) ***If*** $y^2 = x$ ***, it means x is square root of y.*** ***yes /No***

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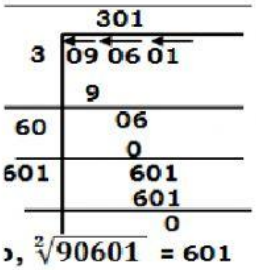
8. ***(i)*** **Maazin find the square root of '90601' as given at right, Tick the option which is correct about his solution.**

(a) He made the wrong pairs.

(b) He solved the question correctly but wrote wrong answer of square root.

(c) He has solved the question correctly.

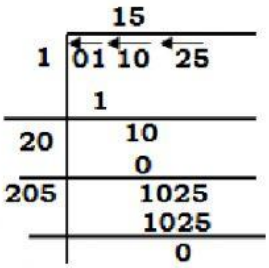


(ii) Azwaah find the square root of '11025' as given at right, Tick the option which is correct about her solution.

(a) She made the wrong pair

(b) She forget to write the second digit of quotient .

(c) She has solved the question correctly.



9. Choose the correct option of solution for each of following.

(i) The area of a square is 73.96m^2. Calculate the length of its side.

Length of each side
$= \sqrt[2]{73.96m^2}$
= 8.6 m

Option 1

Length of each side
$= (73.96)^2$
$= 5470.0816\ m$

Option 2

(ii)324 soldiers queued up such that the number of queues is equal to the number of soldiers in each queue. Find the number of queues.

Number of queues
$= (324)^2$
$= 104976$

Option 1

Number of queues
$= \sqrt[2]{324}$
= 18

Option 2

(iii) By which smallest number can 275 be multiplied to get a perfect square?

Do the prime factorization of 275

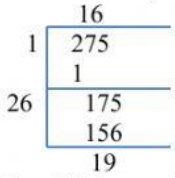
$275 = 5 \times 5 \times 11$

Here pair of 11 is incomplete ,

so if we multiply 275 with 11 it will become a perfect square.

Option 1

Find square root of 275 by short division method ,



So it should be multiplied with 19 to get a perfect square.

Option 2

(iv) ***Aysha has to solve question given below, Help her to choose the correct solution.***
Find square root of 1296 by prime factorization.

$\sqrt[2]{1296}$
$\sqrt[2]{2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 3}$
$\sqrt[2]{2^2 \times 2^2 \times 3^2 \times 3^2}$
$= \sqrt[2]{2^2} \times \sqrt[2]{2^2} \times \sqrt[2]{3^2} \times \sqrt[2]{3^2}$
$= 2 \times 2 \times 3 \times 3$
$= 4 \times 9 = 36$

Option: 1

$\sqrt[2]{1296}$
$\sqrt[2]{2 \times 2 \times 2 \times 2 \times 9 \times 9}$
$\sqrt[2]{2^2 \times 2^2 \times 9^2}$
$= \sqrt[2]{2^2} \times \sqrt[2]{2^2} \times \sqrt[2]{9^2}$
$= 2 \times 2 \times 9$
$= 4 \times 9 = 36$

Option: 2